



Wi-Fi Alliance 

Wi-Fi is  
**everywhere!**

**What's Next in 802.11  
and Wi-Fi**

**Interop  
May 2005**

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# ▶ Wi-Fi Today



# ▶ Driving Industry Growth Through Worldwide Product Interoperability



*From work...*



*to home ...*

## Interoperability everywhere.



*on the road ...*



*even in the air!*

# ▶ The Wi-Fi Alliance

- A non-profit international association
- Industry/thought leader and worldwide certification body for WLAN technology
- More than 200 member companies and growing ([www.wi-fi.org](http://www.wi-fi.org))
- Bring interoperability and user-friendliness to WLAN technology
- Drive collaboration among component vendors, standard bodies and regulators, system integrators, carriers, etc.



# What does the WFA mean to the value chain?

- Manufacturers
  - Certified product interoperability
  - Category growth, promotion and market education
  - Industry roadmap for success
- Channel Partners
  - Easier sale
  - Fewer returns
  - Customer satisfaction
- Consumers/Enterprise
  - Positive user experience
  - Mix and match products from different manufacturers
  - Economies of scale will drive value



*Over 2000 Products Certified*



# Look for the Wi-Fi CERTIFIED Interoperability Certificate

- Ask for this from vendors in your RFPs

**Wi-Fi® Interoperability Certificate** **Certification ID: W003419**



This certificate represents the capabilities and features that have passed the interoperability testing governed by the Wi-Fi Alliance. Detailed descriptions of these features can be found at [www.wi-fi.org/certificate](http://www.wi-fi.org/certificate)

**Certification Date:** April 4, 2005  
**Category:** External Card  
**Company:** Cisco Systems  
**Product:** Cisco Aironet 802.11a/b/g CardBus Adapter AIR-CB21AG

This product has passed Wi-Fi certification testing for the following standards:

IEEE Standard	Security		
802.11a 802.11b 802.11g	WPA™ - Personal WPA™ - Enterprise WPA2™ - Personal WPA2™ - Enterprise		

**For more information: [www.wi-fi.org/certified\\_products](http://www.wi-fi.org/certified_products)**



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**Market Update**



# ▶ Wi-Fi has become a must-have technology in 2005

- In over 70% of laptops shipped worldwide (IDC)
- Over 62,000 hotspots worldwide (JiWire)
- Deployed in 80% of college campuses in US (IDC)



# ▶ Extending Wi-Fi Beyond the PC ...

- The Wi-Fi Alliance vision extends beyond PC-centric applications to next-generation consumer electronics and converged devices
- New standards and certifications will help replicate the success of Wi-Fi in the PC market within the consumer electronics and converged device markets
  - Quality of Service
  - Faster throughput
  - Enhanced security



# ▶ Convergence: Early Attempts



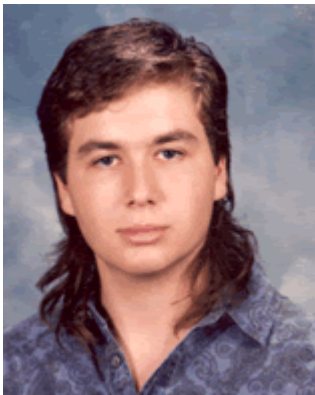
Food: Two great tastes  
that taste great  
together...



... or not so  
great?



Technology:  
Cars that fly and  
houses that  
float?



Hairstyles:  
Business up  
front, party in  
the back?

Fashion  
with a  
function?



# ▶ Convergence Today





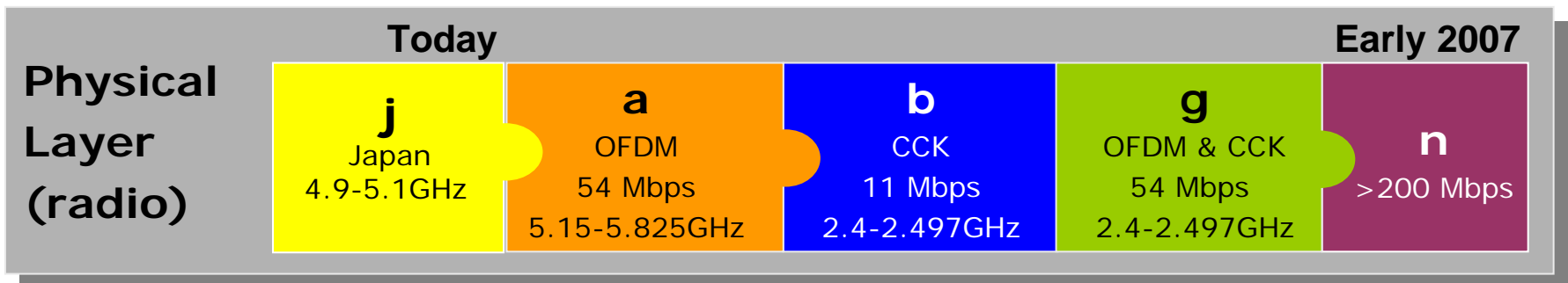
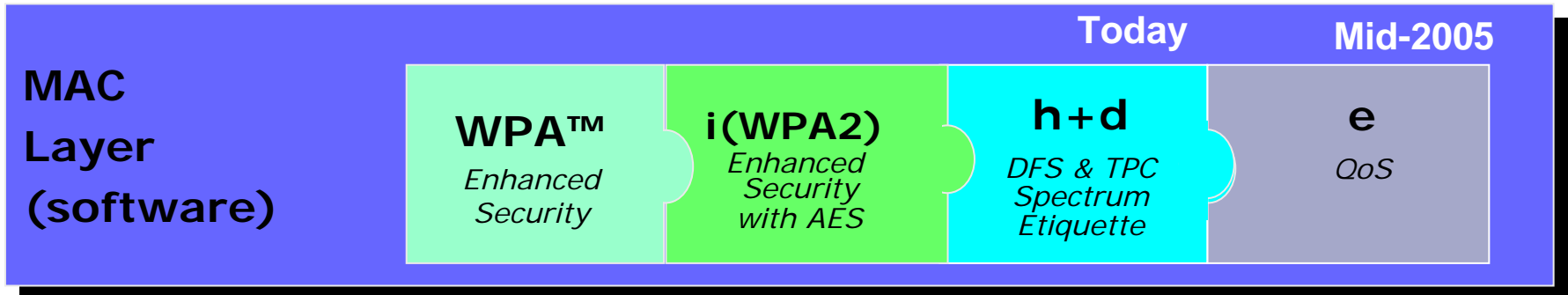
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**Wi-Fi Standards  
and WFA Programs  
Update**



# ▶ The 802.11 Alphabet



# Wi-Fi Alliance Initiatives: Highlights

- Security- WPA/WPA2 + New EAP Types
- QoS & WMM
- Wi-Fi/Cellular Convergence
- Voice over Wi-Fi
- Simple Configuration
- Coming: 802.11n



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**Thank You!**

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[www.wi-fi.org](http://www.wi-fi.org)

## ▶ Forthcoming IEEE Initiatives

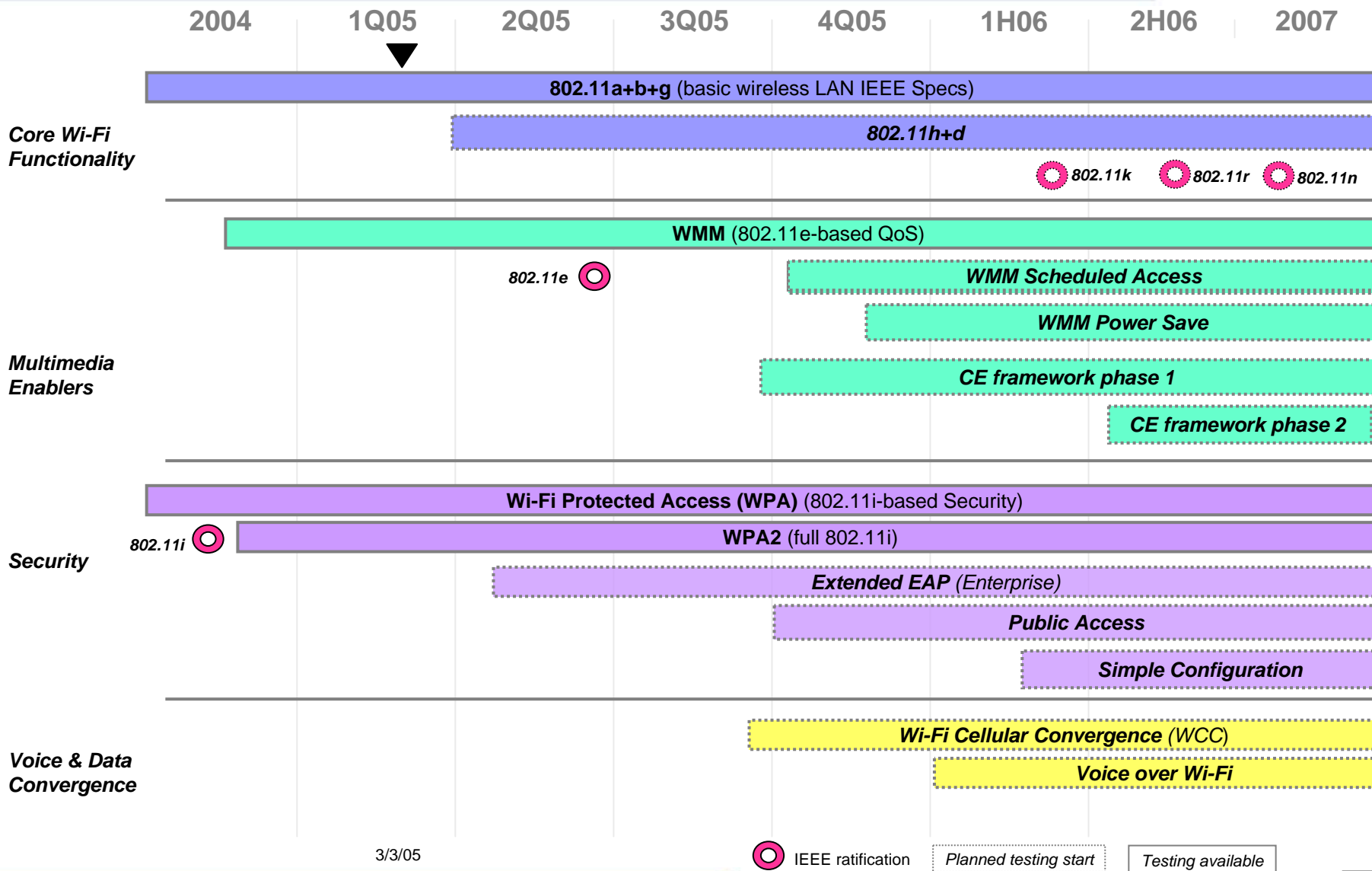
802.11k	Radio resource measurement protocols
802.11n	High throughput
802.11p	Wireless equipment operation in vehicles
802.11r	Fast roaming - BSS transitions
802.11s	Mesh networking specification
802.11u	Interworking with non-802 networks (e.g. cellular)

# WFA Interoperability Certification Roadmap



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# WFA Interoperability Certification Roadmap



3/3/05

IEEE ratification    
 Planned testing start    
 Testing available

# ▶ WFA Leadership in Wireless Security

## Wi-Fi Security Timeline

**April 2003:** Wi-Fi Alliance launches Wi-Fi Protected Access™ (WPA), based on a draft of 802.11i spec

- Addresses issues of WEP, including enterprise-grade authentication, automatic key distribution and re-keying
- Remains a strong security solution today

**September 2004:** WFA launches WPA2 program

- Wi-Fi CERTIFIED™ version of the full 802.11i standard
- Adds AES-based encryption

**April 2005:** WFA announces Extended EAP program for WPA- and WPA2-Enterprise

- Three generations ahead of problems identified with WEP

